Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 62133
Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications

Report Number ..... :	**50079017 002**
Date of issue ..... :	2017-12-01
Total number of pages	8 pages
Applicant's name ..... :	**GlobTek, Inc.**
Address ..... :	186 Veterans Dr. Northvale, NJ 07647 USA.
Test specification:	
Standard ..... :	IEC 62133: 2012 (Second Edition)
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC62133B
Test Report Form(s) Originator .... :	UL(Demko)
Master TRF ..... :	Dated 2013-03

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

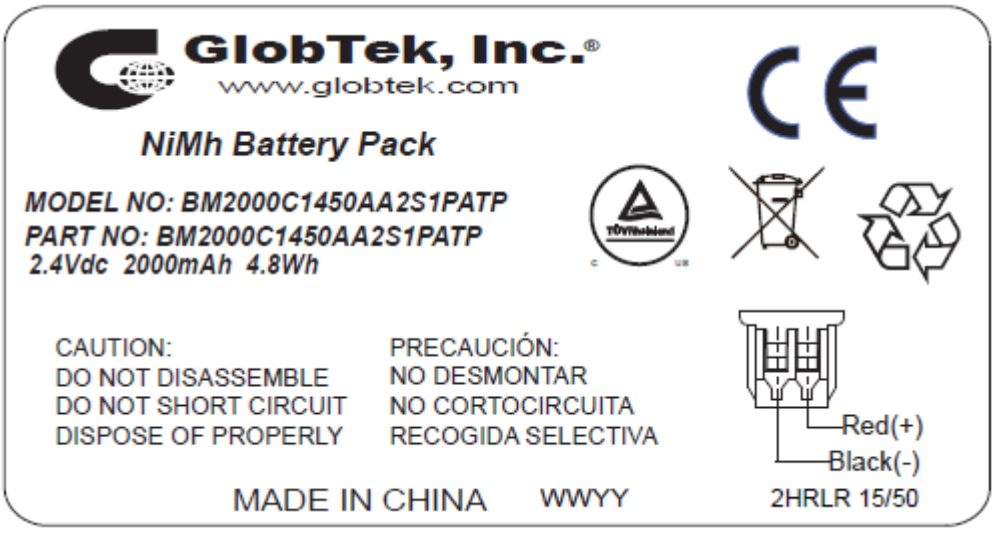
Test item description ..... :	NiMh Battery Pack
Trade Mark ..... :	GlobTek, Inc.
Manufacturer ..... :	**GlobTek, Inc.**
Address ..... :	186 Veterans Dr. Northvale, NJ 07647 USA.
Model/Type reference ..... :	BM2000C1450AA2S1PATP
Ratings ..... :	2.4V, 2000mAh, 4.8Wh

Testing procedure and testing location:		
☒ CB Testing Laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address .....:	East of F/1, F/2 - F/4, Building 1, Cybio Technology, No. 16 Keji North 2nd Road, Hi-Tech Industry Park (North), Nanshan District, Shenzhen, Guangdong, China	
☐ Associated CB Testing Laboratory:		
Testing location/ address .....:		
Tested by (name + signature).....:	Jeffrey Qin	Jeffrey Qin
Approved by (name + signature) .....:	Daniel Dai	Daniel Dai
☐ Testing procedure: TMP		
Testing location/ address .....:		
Tested by (name + signature).....:		
Approved by (name + signature) .....:		
☐ Testing procedure: WMT		
Testing location/ address .....:		
Tested by (name + signature).....:		
Witnessed by (name + signature) ....:		
Approved by (name + signature) .....:		
☐ Testing procedure: SMT		
Testing location/ address .....:		
Tested by (name + signature).....:		
Approved by (name + signature) .....:		
Supervised by (name + signature)...:		

List of Attachments (including a total number of pages in each attachment): N/A	
Summary of testing:	
Tests performed (name of test and test clause): N/A	**Testing location:** **TÜV Rheinland (Shenzhen) Co., Ltd.** East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA
Summary of compliance with National Differences: See previous test report 50079017 001 ☒**The product fulfils the requirements of EN62133: 2013**	

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Test item particulars ..... :	
Classification of installation and use ..... :	N/A
Supply connection ..... :	DC Connector
Recommend charging method declared by the manufacturer ..... :	Charging the battery with 200mA constant current for 16h at ambient 20°C±5°C.
Discharge current (0.2 I_t A) ..... :	400mA
Specified final voltage ..... :	2.0V
Chemistry ..... :	☒ nickel systems ..... ☐ lithium systems
Recommend of charging limit for lithium system	
Upper limit charging voltage per cell ..... :	N/A
Maximum charging current ..... :	1000mA
Charging temperature upper limit ..... :	45°C
Charging temperature lower limit ..... :	0°C
Polymer cell electrolyte type ..... :	☐ gel polymer ☐ solid polymer ☒ N/A
Possible test case verdicts:	
- test case does not apply to the test object .....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing .....:	
Date of receipt of test item.....:	N/A
Date (s) of performance of tests .....:	N/A

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :	1. **GlobTek (Suzhou) Co., Ltd.** Building 4, No. 76, Jinling East Road, Suzhou Industrial Park, Jiangsu 215021, P.R. China

General product information:

The product is consisting of 2 rechargeable Ni-MH cells in series with one PTC in series between two batteries.

The main features of the battery are shown as below:

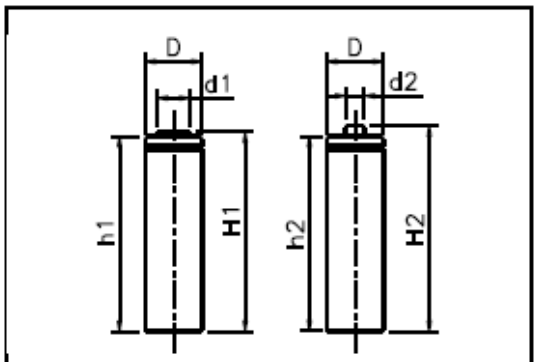
Model	Nominal capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
BM2000C1450 AA2S1PATP	2000mAh	2.4V	200mA	400mA	1000mA	2000mA	N/A	2.0V

The main features of the cell in the battery are shown as below:

Model	Nominal capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current*	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
AA2000	2000mAh	1.2V	200mA	400mA	1000mA	2000mA	N/A	1.0V

Notes: * means rms value.

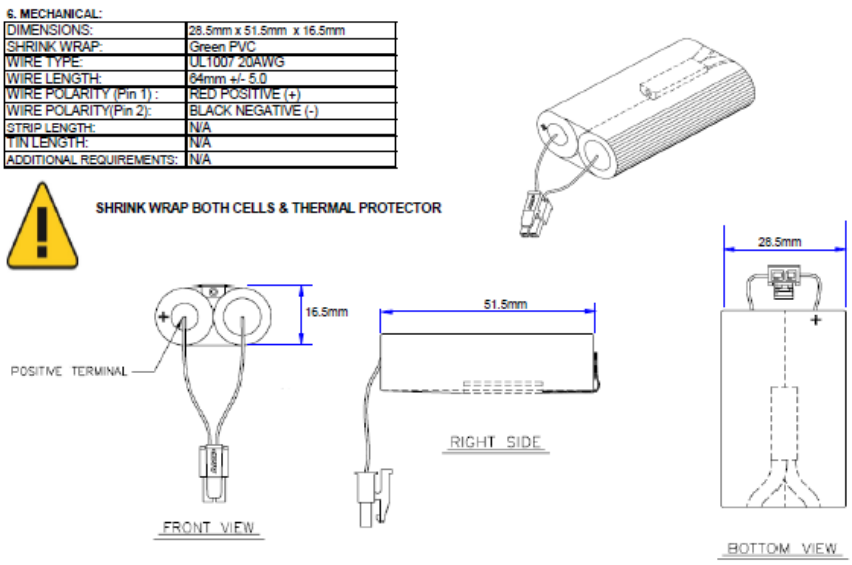
Construction:



Dimensions(without Tube) (mm)

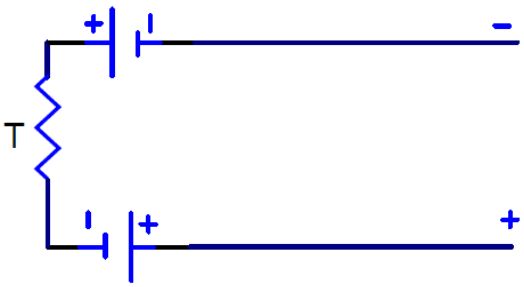
D	14.20±0.10		
d_1	6.60±0.08	d_2	4.80±0.08
H_1	49.20±0.50	H_2	50.00±0.50
h_1	48.50±0.50	h_2	48.50±0.50

Cell(Unit:mm)



Battery (Unit: mm)

Circuit diagram:



Description of change:

1. Add the description about maximum discharge current

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1	N/A	Add the description about maximum discharge current, for details, see the Notes under **table of the main features of the battery**, No additional test need.

History of amendments and modifications:

Ref. No. 50079017 001, dated 2017-06-13 (original test report)
Ref. No. 50079017 002, dated 2017-12-01 (1st Amendment)

--End of the report--